ABSTRACT

Some embodiments of the invention provide a method that pre-computes costs of placing circuit modules in regions of circuit layouts. The method defines a set of partitioning lines for partitioning the region into a plurality of sub-regions during a placement operation. For each set of potential sub-regions, the method identifies a connection graph that traverses the set of potential sub-regions. Some of the connection graphs have edges that are at least partially diagonal. The method then identifies an attribute of each identified connection graph. For each set of potential sub-regions, the method then stores the identified attribute of the connection graph that is identified for the set.